

APPENDIX A

SWORN AFFIDAVIT

Sworn on 27/10 2008

I, Professor John Thomas Sirr Irvine

Of

West Pithorthie, 3 Thirdpart, Anstruther, Fife, KY16 9ST

MAKE OATH and say as follows:

- 1) I am a co-inventor of the invention that is the subject of Patent Application PCT/GB2002/04726.
- 2) At the time of filing the above Patent Application, myself and my co-inventors were not aware of and did not consider an anode of a double perovskite material having the general formula $(Ln_aX_b)_e(Z^1_cZ^2_d)_fO_g$, wherein Ln is selected from Y, La and a Lanthanide series element, or a combination of these and X represents an element occupying the A site of a perovskite oxide and is selected from Sr, Ca and Ba, and Z^1 and Z^2 represent different elements occupying the B site of a perovskite oxide and are selected from Cr, Mn, Mg and Fe, and wherein a has a value from 0 to 1, preferably, 0.7 to 1.0, b has a value of from 1 to 0, preferably 0.3 to 0, and each of c and d has a value of from 0.25 to 0.75, provided that a + b has a value of 1, and c + d, has a value of 1, and wherein e has a value of from 0.8 to 1, wherein f has a value of from 0.8 to 1, and g has a value of from 2.5 to 3.2.
- 3) As would be clearly understood by a person in the field of materials for use in fuel cells, the reference to "perovskites based on lanthanum chromate" made on page 9, lines 31 to 32 of the above Patent Application obviously refers to single perovskite lanthanum chromates, which were known as anode materials at the filing date of the above Patent Application.
- 4) Double perovskite materials as recited in 2) above differ markedly in composition and nature to single perovskite lanthanum chromates.
- 5) Given the difference in composition and properties between single perovskite lanthanum chromates and the double perovskite materials as recited in 2), it

was not obvious to myself and my fellow inventors at the time of filing the above Patent Application to create an anode of a double perovskite material as detailed in 2) above. Furthermore, given the understanding in the art at the time of anodes formed from single perovskite lanthanum chromites, it would clearly not be obvious to other workers in the field to select a double perovskite material as detailed in 2) above based on the teachings of the above Application.

6) The written contents of this affidavit are true.

Signed: John Thomas Irvine

John Thomas Sir Irvine

SWORN at St Andrews

This day of 27th October 2008

Before me,

Alistair B Main 27th October 2008

Witness: ALISTAIR B MAIN

ASSOCIATE DIRECTOR

THE KNOWLEDGE TRANSFER CENTRE

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